Interactive Media Systems

CD-ROM

Information distribution made easy

PHILIPS

One disc contains the equivalent amount of information as can be stored on 200,000 pages of text.

AN INTRODUCTION

CD-ROM is information distribution made easy. Based on the familiar optical compact disc, the system reconciles high volume data storage with rapid access, longevity and low unit costs.

Access your data with the touch of laser light.

A CD-ROM disc can hold text, numbers, video and graphics - indeed any type of data that can be digitised. A single 12 cm (four-and-three-quarter inch) disc may contain the equivalent of 200,000 pages of text or 1500 floppy discs, any part of which may be accessed in seconds. During playback, laser light is the only thing that touches this huge store of data. It will last almost for ever.

Pick up a CD-ROM disc to hold the storage power of a mainframe-sized database in the palm of your hand. Now discover how that power can work for your business.

A NEW TYPE OF SALES TOOL

Something rather special happens when your catalogue, user's guide, or maintenance manual is committed to disc. It becomes a more powerful sales tool. Think about it this way - two products, call them A and B, are identical in every respect save one, the maintenance manuals. Product A's manual makes the average telephone directory look slimline. It can take an age to track down the relevant information, and cross referencing is a nightmare. Product B, however, comes with a space-saving CD-ROM system. Access times are approximately two seconds and often less. Cross references? It does them for you in seconds. Now, which product would you find easiest to sell, A or B?

Sounds promising? A major US computer company thinks so. They now use CD-ROM as a product catalogue, a service manual, a training guide ... even as a software manual.

PUBLISHERS
CD-ROM CUTS YOUR DISTRIBUTION COSTS

The compression of reference works onto a single CD-ROM disc isn't new. Grolier, one of the world's largest publishing houses, did it in 1986 when they launched a CD-ROM version of the "Academic American Encyclopedias". The combination of graphics, text and audio, plus short seek times, charmed children across the United States. It was also enthusiastically received in libraries.

Publishing the CD-ROM way makes sound economic sense. Replication prices, particularly for large batches, can be much lower than those of traditional printing methods. The real breakthrough, however, is in the distribution cost. For the price of sending a single 1000-page document overseas (perhaps one volume of an encyclopedia), almost 100 CD-ROM copies of the entire encyclopedia could be distributed.

Grolier, one of the world's largest publishing houses has launched the "Academic American Encyclopedias" on CD-ROM.

Telefax International published by Jaeger and Waldmann contains the world's telex and telefax numbers on CD-ROM.

LAWYERS
CD-ROM HELPS KEEP THE RECORDS STRAIGHT

Searching law records for an obscure legal point is a bit like trying to find a needle in a haystack, CD-ROM is the nearest equivalent to a magnet. You can rapidly sift through heaps of rules and regulations to capture the information you need. Then, if necessary, delve more deeply into the background details via a guided database search.

In the U.S.A., where over 40,000 new case reports are published each year, three titles of one U.S. Code of Federal Regulations, plus the state code of the Commonwealth of Virginia are already on discs. Italy is also turning to CD-ROM. Several publishers issue a comprehensive CD-ROM database of Italian law that is updated every three months. Jurists, public notaries and commerce lawyers now have easy access to judicial information.

Architect or doctor; banker or mechanic, CD-ROM can work for you.

WHO ELSE IS IT FOR?

A technically advanced product with a successful track record, CD-ROM attracts two very different types of user - the trendsetter and the trendfollower. Users include:

- The banker. Financial reports and surveys are there at the touch of a button. Full financial details of up to 10,000 corporations can be held on one disc.
- The government worker. Store and disseminate tax codes, census data, occupational safety/health regulations. An entire code of law can fit on one disc.
- The doctor. CD-ROM stores and distributes information from the thousands of medical journals generated by the healthcare industry.
- The design engineer. One CD-ROM disc can replace a mountain of data sheets, blueprints and design procedures.
- The service engineer. Disc-based maintenance manuals and test procedures are an accessible, space-saving alternative to traditional documentation.
- Businessman/woman. It is all there on disc - employee files, financial records, applications software - whatever information you need to run your business more effectively.

EVERY PLAYER IS COMPATIBLE WITH EVERY DISC

The CD-ROM "bible", known as The Yellow Book, specifies error correction and encoding techniques. Developed jointly by Philips and Sony, these standards are embodied in every CD-ROM disc, player and production plant around the world.

CD-ROM XA AN EXTENSION OF CHOICE

XA stands for extended architecture. It opens up new applications by interleaving data consisting of audio, text and graphics.

CD-ROM XA is an extension of CD-ROM. It gives the PC user three levels of high quality sound: CD-Digital Audio, FM quality and Speech (the two lowest audio levels are "compressed" to allow interleaved audio/text/graphics). You can work with dynamic moving images, text and graphics, on the same screen. In short, this means multimedia computing.

CD-ROM XA opens up new possibilities in the storage, manipulation and presentation of data. You could, for instance, make a product catalogue. One disc may be used to describe an entire product range in ten languages.

One last thing. By simply exchanging interface boards you can upgrade CD-ROM drives to play CD-ROM XA discs. And, with CD-ROM XA, you can still play all your CD-ROM titles.

Complete compatibility between all players and discs.

WHY YOU SHOULD TALK TO THE PROFESSIONALS

Philips supports you all the way. A complete package encompassing consultation, design and production facilities is at your disposal. We provide all the necessary hardware, too. To see how it all comes together, let's go behind the scenes of a typical CD-ROM project. It starts with a feasibility consultation. These are wide-ranging discussions which touch on applications, performance, deadlines, and budgets. When given the go-ahead, we assign software specialists to structure all the material for the disc into a format suitable for CD-ROM.

Pre-mastering - whereby synchronisation and error correction codes are added - is followed by mastering which creates the prototype CD-ROM disc. Incidentally, we can make a test disc to demonstrate the product under real operating conditions.

During replication, the last step in the production chain. Discs are stamped, covered with a protective lacquer layer and labelled. It all takes place in some of the world's most advanced optical manufacturing plants.

CD-ROM. A more efficient way to work with large amounts of information.

● **Production improvement**. The user increases efficiency and effectiveness.

● **Economy**. Low cost reproduction and distribution of information.

● **Convenience**. Search and access data with ease.

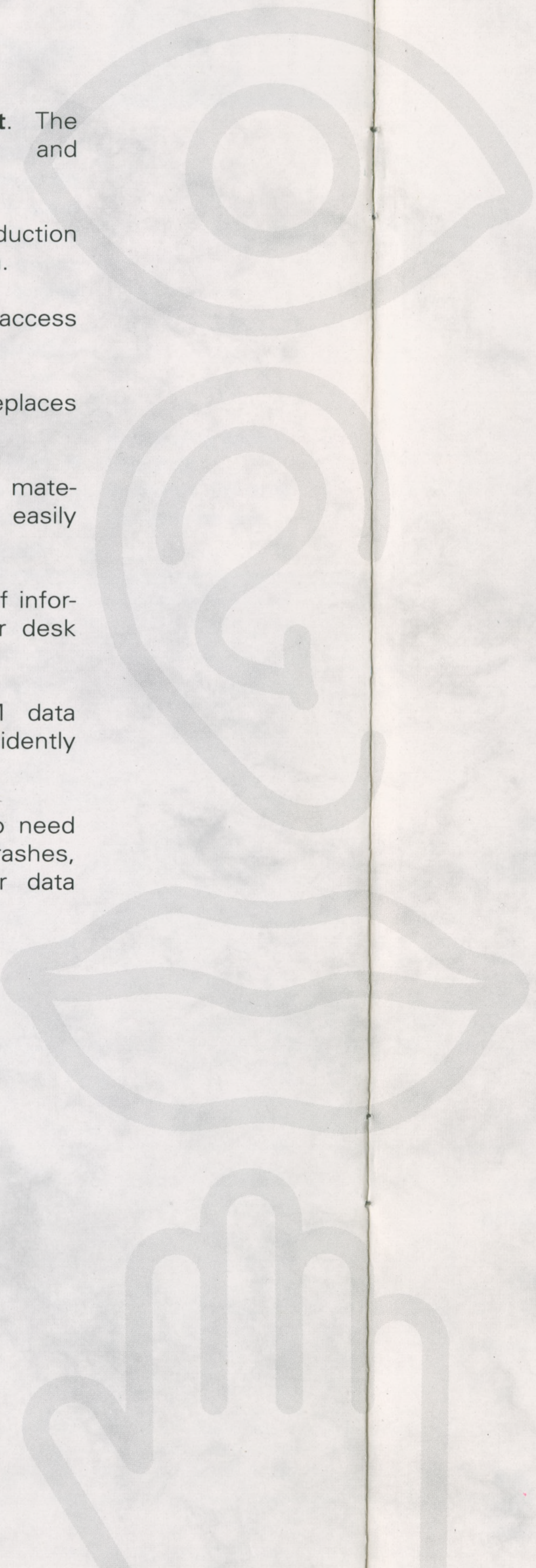
● **Space-saving**. One disc replaces shelves of printed material.

● **Updates**. Unlike printed materials, CD-ROM discs are easily updated.

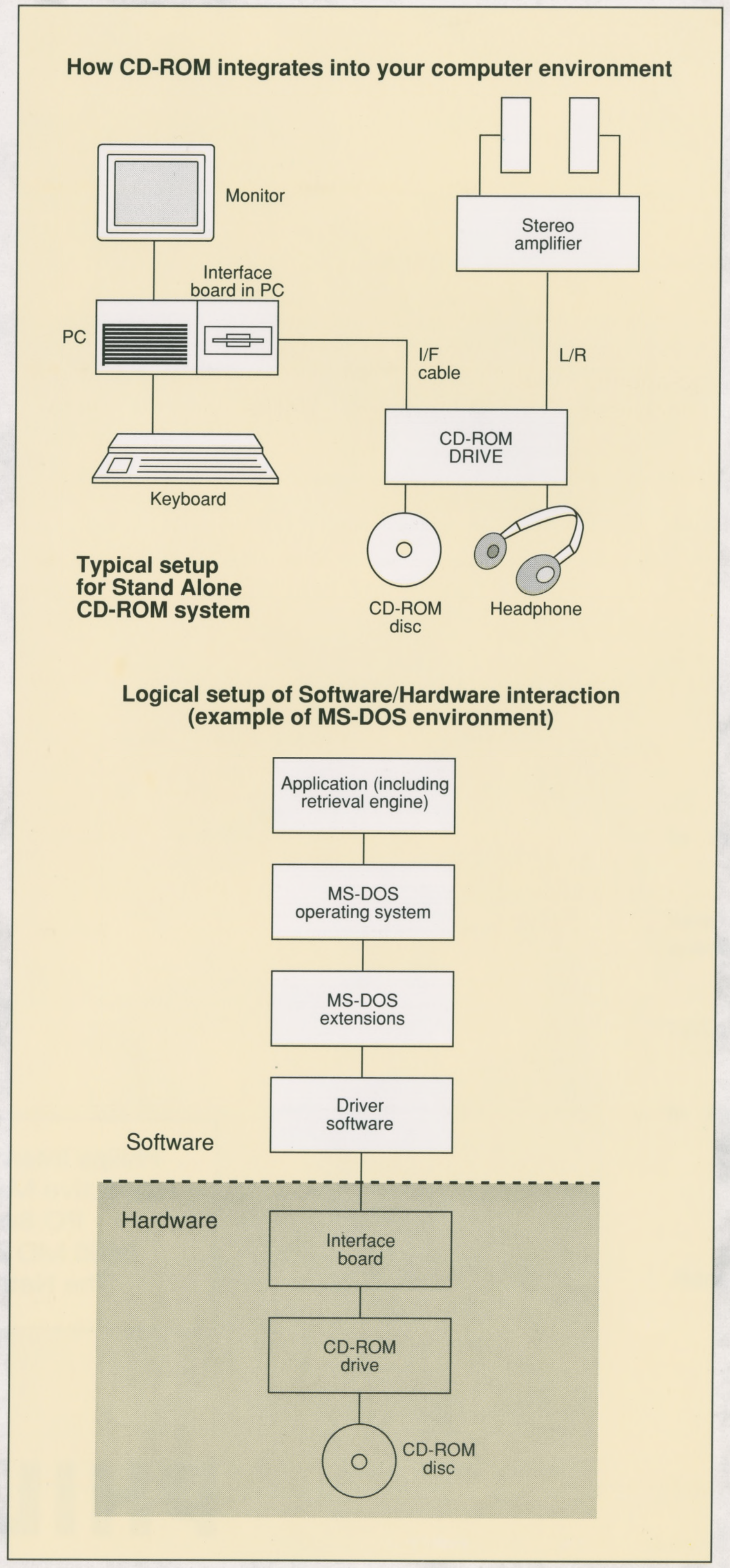
● **Capacity**. Huge volumes of information conveniently on your desk top.

● **Data permanence**. ROM data cannot be altered or accidently erased.

● **Assured performance**. No need to worry about network crashes, slow access times or poor data transmission.



Software specialists will structure all information sources into the right CD-ROM format.



How CD-ROM integrates into your computer environment

Typical setup for Stand Alone CD-ROM system

Logical setup of Software/Hardware interaction (example of MS-DOS environment)

TECHNICAL DATA

Capacity

A single CD-ROM disc stores up to 650 MBytes of data. This represents over 200,000 pages of text, 74 minutes of high fidelity stereo, or more than one thousand images. It can also store combinations of text, audio and video.

Performance

Average access time:
≤ 500 msec
Average transfer rate:
153.6 kByte/sec (mode 1 data)
176.4 kByte/sec (mode 2 data)

HARDWARE

CD-ROM subsytems

Based on either the stand-alone front-loading drive; or alternatively, a built-in version installed in a spare floppy drive slot on your PC.

Integrated workstations

Incorporating a PC, integrated CD-ROM drive, a monitor and all accessories.

COMPATIBILITY

PC compatibility

CD-ROM drives are compatible with:

- IBM AT, IBM XT and 100% compatibles - like the new Philips range of PCs.
- Personal System 2 (either with an AT or a MCA bus)

Both types of system should run under DOS (Version 3.X or later). CD-ROM drives are also compatible in Apple-Macintosh and Unix environments.

Software compatibility

Your CD-ROM player is equipped with software drivers that ensure compatibility with all software that is based on the so-called High Sierra (ISO 9660) format.

The products and services described herein are not necessarily available in all countries.
Due to continuous product improvements this specification is subject to change without notice.

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